

U.S. Application No. 10/617,834

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An apparatus of transmitting packets, comprising:

a plurality of line cards which have interfaces for transmitting and receiving packets;

switches connected to said plurality of interfacesline cards; and

a statistic information collecting processor connected to said switches; switches, said statistic information collecting processor including means for analyzing header information imparted to said packets; packets, and means for counting an amount of packets to be transmitted or received through said interfaces,

wherein said statistic information collecting processor predicts the amount of packets to be received by said plurality of interfaces from said header information and said amount of packets which have been analyzed, and

wherein on the basis of said amount of packets predicted, the interfaces for transmitting the packets will be are selected.

2. – 3. (canceled)

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4. (original) The apparatus of transmitting packets according to Claim 1, further comprising a bus for directly connecting said interfaces and said statistic information collecting processor.

5. (currently amended) The apparatus of transmitting packets according to Claim 1, wherein said interfaces for transmitting and receiving packets have means for storing, in a frame, at least a portion of a header plural headers imparted to at least one or more a plurality of packets which said interfaces transmit and receive receive, and means for transmitting the frame to the statistic information collecting processor.

6. (currently amended) The apparatus of transmitting packets according to Claim 5, wherein a plurality of the headers of packets to be stored in said frame are multiplexed into said frame and are all equal to one another in size.

7. (currently amended) The apparatus of transmitting packets according to Claim 5, further comprising means for multiplexing into said frame the headers stored in said frame, wherein said means for multiplexing determines the length of a of each header portion to be extracted from a plurality of packets in response to information indicating classification of said packets which have been set to headers to be imparted to each of said packets to multiplex into one frame.

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8. (currently amended) The apparatus of transmitting packets according to Claim 1, further comprising said-a plurality of said statistic information collecting-processors processor.

9. (currently amended) The apparatus of transmitting packets according to Claim 1, further comprising an extension function processor connected to said lead-balancing statistic information collecting processor, said extension function processor performing processing to be executed on a higher layer than a layer on which a received packet is transferred.

10. (currently amended) The apparatus of transmitting packets according to Claim 3 Claim 1, further comprising a table provided on in each of said line cards, on which a relationship of a correspondence between header information of the received packets and destination an output line card of the packet is described, and a statistics table provided in said statistic information collecting processor, on which is described a relationship of a correspondence between header information of the received packets and said amount of packets.

11. (currently amended) The apparatus of transmitting packets according to Claim 10, further comprising means for renewing said table provided on each of said line cards on the basis of said amount of packets predicted.

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12. (currently amended) A method of transmitting packets to be used in an apparatus of transmitting packets having a plurality of line cards, each of which has interfaces for transmitting and receiving packets and means for processing packets, comprising the steps of:

receiving packets through said interfaces;
counting a number of said packets received by each of said interfaces;
predicting a number of packets to arrive at one each of said plurality of interfaces in the future on the basis of said number of packets counted; and
selecting an interface for transmitting a transmitted packet on the basis of said number of packets predicted.

13. (currently amended) The method of transmitting packets according to Claim 12, further comprising a step of multiplexing a plurality of header information of a plurality of said received packets into one frame, and
a step of transmitting the frame to the means for processing packets.

14. (currently amended) The method of transmitting packets according to Claim 13, further comprising a step of extracting only a portion of said headers corresponding to a fixed length from said received packets.

15. (currently amended) The method of transmitting packets according to Claim 14Claim 13, further comprising a step of extracting a header of said received packet

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only by a size corresponding to information indicating classification of said packet set to a header to be imparted to each of said packets.

16. (currently amended) An apparatus of transmitting packets, comprising:
a plurality of line cards, each of which has interfaces for transmitting and receiving packets;
switches connected to said plurality of interfacesline cards; and
a statistic information collecting processor connected to said switches; switches,
said statistic information collecting processor including means for analyzing header information imparted to said packets; packets, and means for counting an amount of packets to be transmitted or received through said interfaces,
wherein said statistic information collecting processor selects an interface for transmitting the packet on the basis of said amount of packets counted.